

# Operation Manual



**IN3056 - 1 x 4 S-Video Distribution Amplifier**

**IN3058 - 1 x 8 S-Video Distribution Amplifier**





## Installation and Safety Instructions

### *For Models without a Power Switch:*

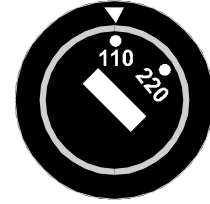
The socket outlet shall be installed near the equipment and shall be accessible.

### *For Models with 110 / 220V Power Selector:*

**Caution:** Before applying power to this unit, the voltage selector must be set to the appropriate setting to match local A/C line voltage. Improper setting of the voltage selector may cause damage to the unit and create a potential fire hazard.

The voltage selector is a round switch located next to the A/C power input connector which looks like this:

Using a straight slot screwdriver or small coin, rotate the selector to the correct position so that the arrow lines up with 110 or 220 as appropriate for local power line voltage as indicated in the chart below:



| Local A/C Voltage | Voltage Selector Setting |
|-------------------|--------------------------|
| 110 ~ 120 VAC     | 110                      |
| 220 ~ 240 VAC     | 220                      |

### *For all Models:*

No serviceable parts inside the unit. Refer service to a qualified technician.

### *For Models with Internal or External Fuses:*

For continued protection against fire hazard, replace only with same type and rating of fuse.

### *For IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:*

**Caution:** Double pole / neutral fusing.

### *For all Models with Integral Lithium Battery:*

**Caution:** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.



## Instructions d'installation et de sécurité

### *Pour les modèles sans interrupteur de courant:*

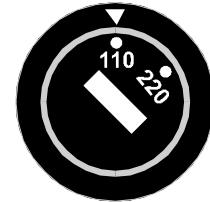
La prise de courant d'alimentation sera installé près de l'équipement et sera accessible.

### *Pour les modèles avec un sélecteur d'alimentation 110V/220V:*

**Attention:** Avant de connecter l'appareil au circuit d'alimentation, le sélecteur de courant doit être positionné sur la sélection appropriée correspondant au voltage du circuit de courant alternatif local. Une mauvaise sélection peut engendrer des dommages à l'appareil et créer un danger d'incendie.

Le sélecteur d'alimentation est un commutateur rond positionné près du connecteur d'alimentation. Il se représente comme suit:

A l'aide d'un tourne-vis plat ou d'une pièce de monnaie, le sélecteur peut être tourné dans la position adéquate en veillant que la flèche corresponde avec 110 ou 220, en fonction de la valeur du circuit de courant local. (Voir tableau ci-dessous)



| Circuit local AC | Position Sélecteur |
|------------------|--------------------|
| 110 ~ 120 VAC    | 110                |
| 220 ~ 240 VAC    | 220                |

### *Pour tout les modèles:*

Pas de composants à entretenir à l'intérieur. Confiez toute réparation à un technicien qualifié.

### *Pour les modèles équipés de fusibles internes ou externes:*

Afin d'éviter tout danger d'incendie, ne remplacer qu'avec le même type et la même valeur de fusible.

### *Pour IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:*

**Attention:** Double pôle / fusible au neutre.

### *Pour tout les modèles avec une batterie au lithium interne:*

**Attention:** Danger d'explosion si la batterie est incorrectement remplacée. Ne remplacez la batterie qu'avec le même modèle, ou avec un modèle recommandé par le constructeur. Traitez les batteries usagées selon les instructions du fabricant, ou selon les normes écologiques en vigueur.



## Installations und Sicherheitshinweise

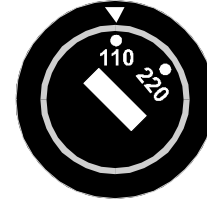
### Für Geräte ohne Netzschalter:

Die Netzsteckdose soll in der Nähe des Gerätes installiert und frei zugänglich sein.

### Für Geräte mit 110 / 220V Spannungswähler:

**Achtung:** Bevor Sie dem Gerät Spannung zuführen, muß der Spannungswähler entsprechend der Spannung des lokalen Wechselspannungsnetzes eingestellt werden. Die falsche Stellung des Spannungswählers kann eine Beschädigung des Gerätes und möglicherweise ein Feuer verursachen.

Der Spannungswähler ist ein runder Schalter in der Nähe der Netzeingangsbuchse mit folgendem Aussehen:



Drehen Sie den Wähler mit einem normalen Schraubenzieher oder einer kleinen Münze so, daß der Pfeil auf die 110 oder 220 zeigt, entsprechend der Spannung Ihres lokalen Netzes wie hier angezeigt:

| Lokale Netzwechselspannung | Stellung des Spannungswählers |
|----------------------------|-------------------------------|
| 110 ~ 120 V                | 110                           |
| 220 ~ 240 V                | 220                           |

### Für alle Geräte:

Keine Wartung innerhalb des Gerätes notwendig. Reparaturen nur durch einen Fachmann!

### Für Geräte mit interner oder externer Sicherung:

Für dauernden Schutz gegen Feuergefahr darf die Sicherung nur gegen eine andere gleichen Typs und gleicher Nennleistung ausgewechselt werden.

### Für IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:

**Achtung:** Allpolige Absicherung

### Für alle Geräte mit eingebauter Lithium Batterie:

**Achtung:** Explosionsgefahr bei falschem Batterieeinsatz. Batterie nur ersetzen durch den gleichen oder entsprechenden Typ wie vom Hersteller empfohlen. Entsorgung verbrauchter Batterien nur nach den Anweisungen des Herstellers.



## Instalacion E Instrucciones de Seguridad

### Modelos Sin Interruptor:

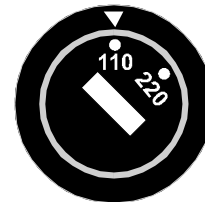
La conexión debe ser instalada cerca del equipo y debe ser accesible.

### Modelos con Selector de Voltaje de 110/220V:

**Precaución:** Antes de operar esta unidad, el selector de voltaje debe instalarse de forma que corresponda a la línea de voltaje local. Instalación inadecuada del selector de voltaje puede causar daño a la unidad y originar un incendio.

El selector de voltaje es un cambio vía redondo localizado cerca de la conexión eléctrica, como se ve en el dibujo:

Use un destornillador común o una moneda pequeña, mueva el selector a la posición correcta, de forma que las flechas indiquen 110 o 220 de acuerdo con el voltaje local, como está indicado a continuación.



| Voltaje Local A/C | Selector de Voltaje |
|-------------------|---------------------|
| 110 ~ 120 VAC     | 110                 |
| 220 ~ 240 VAC     | 220                 |

### Para Todos Los Modelos:

Dentro de la unidad, no hay partes para reparar. Llame un técnico calificado.

### Modelos con Fusibles Internos o Externos:

Para prevenir un incendio, reemplace solo con el mismo tipo de fusible.

### Modelos IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:

**Precaución:** Double Polo / Fusible Neutral.

### Modelos con Batería de Lithium Interna:

**Precaución:** Peligro de explosión si la batería es reemplazada incorrectamente. Reemplace solamente con la misma clase de batería, o una equivalente recomendada por el fabricante. Deseche las baterías usadas de acuerdo con las instrucciones del fabricante.

**CE COMPLIANCE**

All products exported to Europe by Inline, Inc. after January 1, 1997 have been tested and found to comply with EU Council Directive 89/336/EEC. These devices conform to the following standards:

EN50081-1 (1991), EN55022 (1987)

EN50082-1 (1992 and 1994), EN60950-92

**Shielded interconnect cables must be employed with this equipment to ensure compliance with the pertinent Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) standards governing this device.**

**FCC COMPLIANCE**

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide against harmful interference when equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

## DESCRIPTION

The **IN3056** and **IN3058** are high performance analog video distribution amplifiers designed for S-Video signals. These units feature separate amplification circuitry for the chroma and luma video signal components and 4-Pin mini DIN connectors for input and outputs. The **IN3056** is a 1 input, 4 output distribution amplifier and the **IN3058** is a 1 input 8 output distribution amplifier. These units feature high video bandwidth performance of 100 MHz and employ very compact designs which allow them to be installed in a small space. The **IN3056 / IN3058** include separate gain controls for the chroma and luma signals which may be adjusted to compensate for signal loss caused by long cable runs. Multiple **IN3056/IN3058** units can be looped together to provide additional outputs.

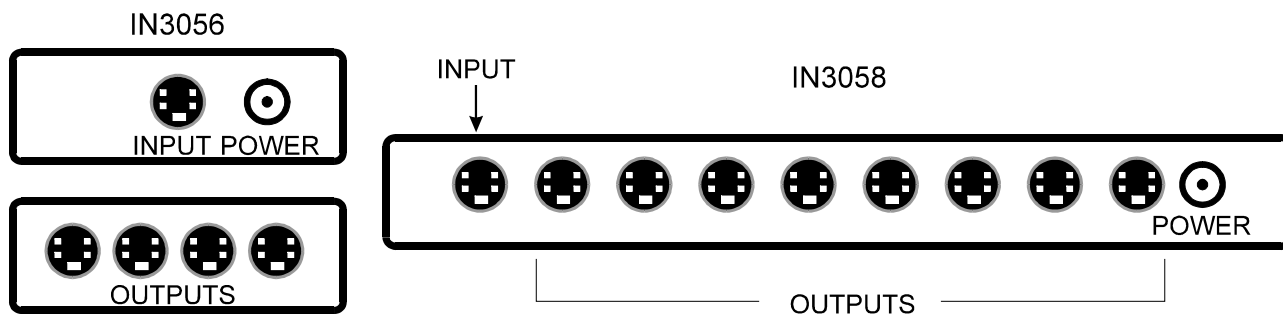
## COMPATIBILITY

The **IN3056 / IN3058** are compatible with S-Video input signals in NTSC, PAL, and SECAM standards. These units will also amplify and distribute one or two separate composite video signals if **IN9093** S-Video to 2-BNC adapters are used on the input and outputs.

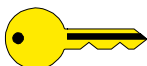
## INSTALLATION

An application diagram showing all connections is included on the next page.

1. Connect the video signal from the source to the **IN3056 / IN3058** input.
2. Connect the **IN3056 / IN3058** outputs to the display devices or other video output equipment.
3. Apply power to the unit (9 V 200 mA DC) using the supplied power adapter.
4. Adjust Chroma and Luma controls as needed (see **Internal Controls** section for details.)

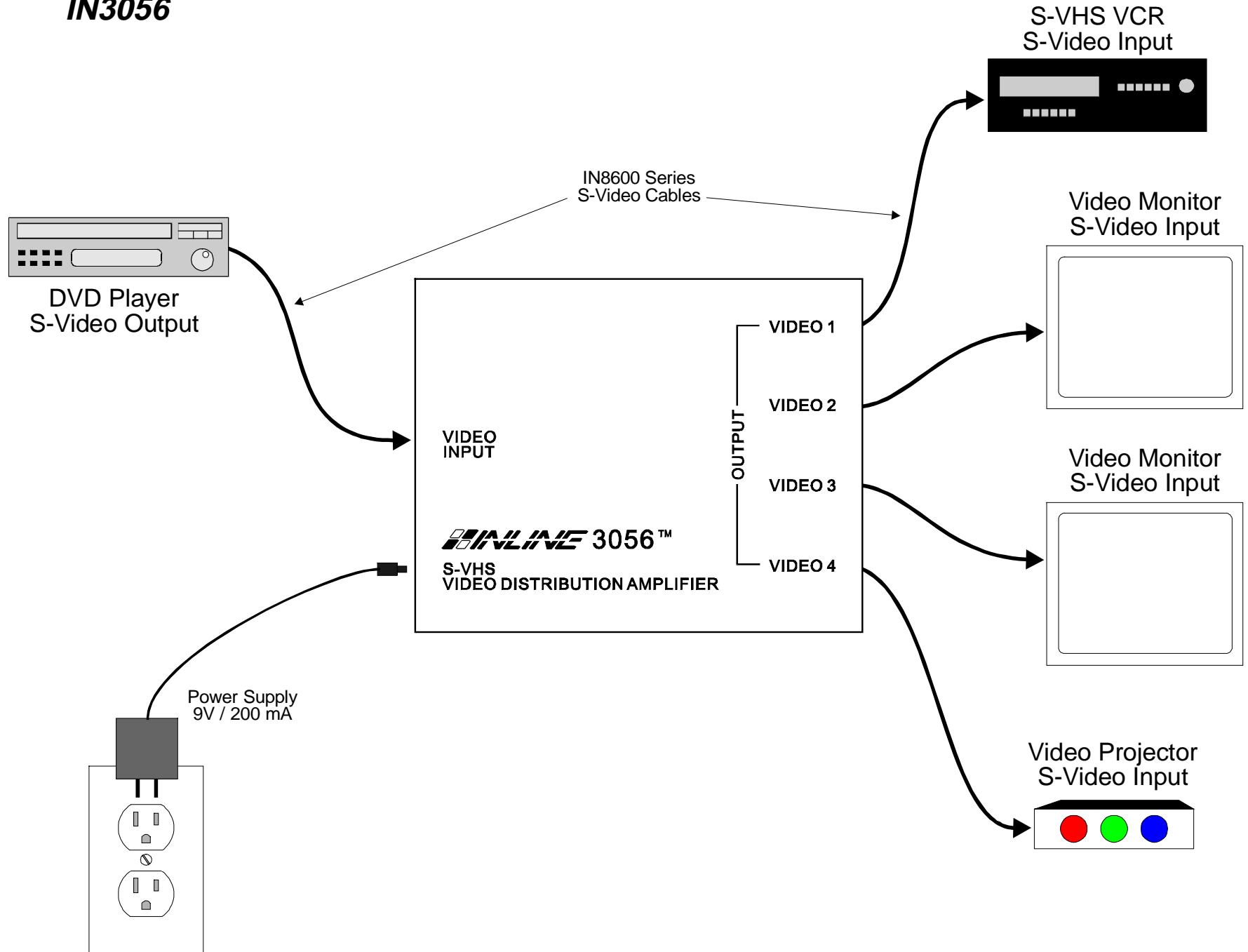


### KEY CONCEPT



*It is very important to use good quality S-Video cables on all input and output connections. Low cost S-Video cables often do not use coaxial cable construction, and provide poor performance at distances greater than 6 to 12 feet. A better choice is an S-Video cable fabricated with two mini-coax cables such as the **IN8600 Series**. For highest quality transmission on the longest cable runs, a pair of high resolution coaxial cables (RG59 or better) is recommended to carry the chroma and luma signal components. The **IN9093** S-Video male to 2-BNC female adapters may be used to adapt regular BNC cables to the **IN3056/IN3058** input and output connectors.*

# Application Diagram IN3056



## OPERATION

The **IN3056** and **IN3058** are designed to distribute and extend video signals in the S-Video (Y/C) format. These units include controls for Chroma and Luma which can be used to optimize the output signal and compensate for cable losses, extending a video signal as far as 300 feet without any degradation of the signal. The actual usable drive distance depends greatly on the type of cable used for the long cable runs.

The Luma control affects the contrast, and the Chroma control adjusts the color level. Please note that most display devices include an AGC circuit which automatically adjusts the Chroma level. In many installations, no visible change of color saturation will be observed when adjusting the Chroma level control because the AGC circuit in the display device is acting contrary to the level changes made by the user to the **IN3056 / IN3058** Chroma level control.

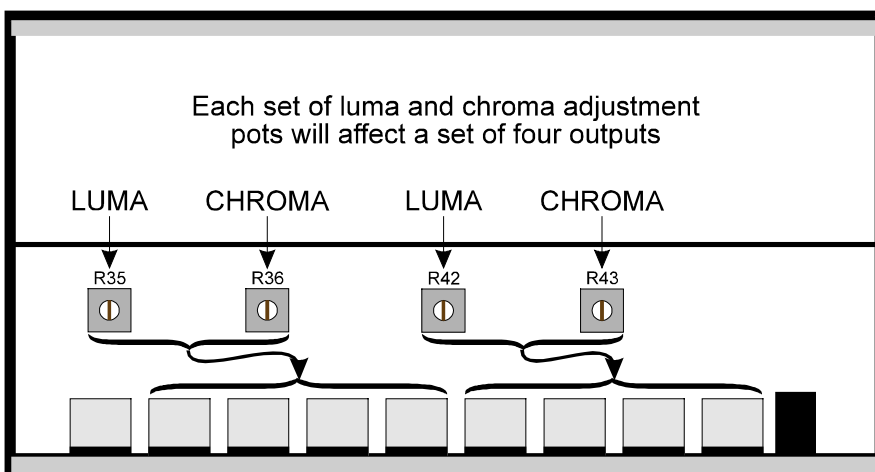
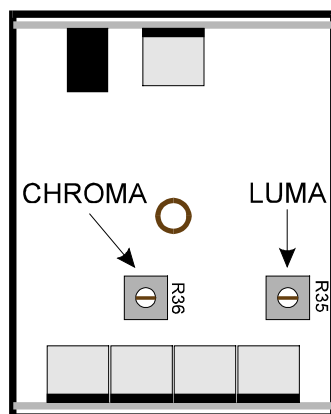
## INTERNAL CONTROLS

The **IN3056** and **IN3058** internal Chroma and Luma level controls may be accessed using the following procedure:

1. Remove the screw from the bottom of the unit.
2. Slide the top cover off.
3. Locate the Chroma and Luma controls (see diagrams below) and gently adjust as required using a small plastic straight slot adjustment tool. Turn the controls counter-clockwise to increase the gain and clockwise to decrease the gain. Note the following differences between the two models:

- |               |  |
|---------------|--|
| <b>IN3056</b> | One Chroma Gain Control and One Luma Gain Control affect all four outputs  |
| <b>IN3058</b> | Two Chroma Gain Controls and Two Luma Gain Controls are provided.<br>Each control affects four outputs (outputs 1 - 4 or outputs 5 - 8). |

4. Replace the top cover and tighten the bottom screw.



## SPECIFICATIONS

|   | <b>IN3056</b><br><b>1 x 4 S-Video Dist. Amp.</b>                                    | <b>IN3058</b><br><b>1 x 8 S-Video Dist. Amp..</b>                                   |
|---|---|---|
| <b>Input</b>  |   |   |
| Connector type  | (1) 4-Pin Mini DIN  |   |
| Chroma / Luma Signals   | Analog, 1.5V p-p max., 75 ohm impedance   |   |
| <b>Output</b>   |   |   |
| Connector Type  | (4) 4-Pin Mini DIN  | (8) 4-Pin Mini DIN  |
| Y/C Signals   | Analog Video, 75 ohm impedance  |   |
| Bandwidth   | 100 MHz @ -3 dB   |   |
| Rise and Fall Times   | 3.5 nano seconds  |   |
| <b>Controls</b>   |   |   |
| Chroma Gain   | Adjustable: 0.9 to 1.5  |   |
| Luma Gain   | Adjustable: 0.9 to 1.5  |   |
| <b>Dimensions</b>   |   |   |
| Size  | 1" H x 3.5" W x 2.75" D   | 1" H x 7.75" W x 4" D   |
| Weight  | 1 lb.   | 1 lb.   |
| Power Consumption   | 9V 200 mA   | 9V 200 mA   |
| <b>Accessories Included</b>   |   |   |
|   | <b>IN3056</b> Distribution Amplifier<br>9V 200 mA Power Supply<br>Operations Manual | <b>IN3058</b> Distribution Amplifier<br>9v 200 mA Power Supply<br>Operations Manual |
| <b>Optional Accessories</b>   |   |   |
| <b>IN9093</b> Input/Output Adapter, 4-Pin Mini DIN Male to (2) BNC Female |   |   |

## TROUBLESHOOTING

**Problem:** There is no image on the output of the IN3056/3058.

- Suggestions:**
- Make sure the power supply is plugged in. Verify that the input and output cables are connected and properly seated in the input and output connectors.
  - Bypass the **IN3056/3058** to ensure there is a video signal present.

**Problem:** The output image is too dark.

- Suggestion:**
- First make sure the display device contrast and brightness controls are set properly. Then increase the appropriate **IN3056/3058** Luma gain control(s) until the desired image is achieved.

**Problem:** The output image is too bright or the picture blooms.

- Suggestion:**
- First make sure the display device contrast and brightness controls are set properly. If necessary, adjust the appropriate **IN3056/3058** output Luma gain control(s) until the desired image is achieved.



- Problem: **The output image is not sharp enough. Vertical lines are very thin.**
- Suggestions: ● Make sure you are using high quality coaxial video cables such as the Inline **IN8600** Series, especially for longer cable runs. Many low cost S-Video cables are not constructed using coaxial cable and will not transmit signals well at distances over 6 to 12 feet.

## WARRANTY

- ◆ Inline warrants the equipment it manufactures to be free from defects in materials and workmanship.
- ◆ If equipment fails because of such defects and INLINE is notified within two (2) years from the date of shipment, INLINE will, at its option, repair or replace the equipment at its plant, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications.
- ◆ Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of re-shipment to the Buyer.
- ◆ **This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.**

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